

## CLAIMS

1 - Compositions for thermoplastic aliphatic polyesters or copolymers in which the ester functions are separated by a chain of at least 2 carbon atoms, possibly substituted, characterized by an RMFI value ranging between 1.1 and 2.5.

2 - Compositions according to claim 1, characterized in that they have a gel level less than or equal to 0.5%.

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3 - Compositions according to any one of claims 1 to 2, characterized in that they have a hardening behavior under elongation in the molten state characterized by an exponential increase in elongational viscosity according to time.

4 - Compositions according to any one of claims 1 to 3, characterized in that they comprise a thermoplastic aliphatic polyester of which the mean molecular mass in number, measured by gel permeation chromatography, is in excess of or equal to 10,000 g/mole.

5 - Compositions according to any one of claims 1 to 4, characterized in that they comprise a thermoplastic aliphatic polyester of which the mean molecular mass in number, measured by gel permeation chromatography, is less than or equal to 200,000 g/mole.

6 - Compositions according to any one of claims 4 to 5, characterized in that the thermoplastic aliphatic polyester consists of a single polymer.

7 - Compositions according to any one of claims 4 to 5, characterized in that the thermoplastic aliphatic polyester results from the mixing of at least two thermoplastic aliphatic polyesters.

8 - Compositions according to any one of claims 1 to 7, characterized in that they also contain at least one filler material.

9 - Compositions according to any one of claims 1 to 8, characterized in that the thermoplastic aliphatic polyesters are  $\epsilon$ -caprolactone polymers.

10 - A process for preparation of compositions for thermoplastic aliphatic polyesters according to any one of claims 1 to 9, characterized in that there is caused to react in a molten mass in an extruder a thermoplastic aliphatic polyester with a radical generator in a quantity ranging between 0.01 and 0.2% by weight in relation to the thermoplastic aliphatic polyester.

11 - A process according to claim 10, characterized in that the radical generator is introduced into the extruder in a mixture with carbon dioxide.

12 - A process according to claim 10, characterized in that the radical generator is introduced into the extruder by means of a thermoplastic aliphatic polyester containing the radical generator.

13 - A process according to claim 10, characterized in that the radical generator is introduced into the extruder by means of a filler material containing the radical generator.

14 - A process according to any one of claims 10 to 13, characterized in that at least one filler material is added.

15 - The use of compositions according to any one of claims 1 to 9 for the manufacture of films, foams, bottles or thermally molded products.

16 - Films obtained starting from the compositions according to any one of claims 1 to 9.

17 - Films according to claim 16, characterized in that they are produced by blowing extrusion.

18 - The use of the films according to any one of claims 16 to 17 for the manufacture of trash bags, films for agriculture, films for packaging, shrouds, disposable diapers and adhesive films.

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A3

- 19 - Foams obtained starting from the compositions according to any one of claims 1 to 9.
- 20 - Bottles obtained starting from the compositions according to any one of claims 1 to 9.
- 21 - Thermally molded products obtained starting from the compositions according to any one of claims 1 to 9.

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